Oesophago-bronchial Fistula

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Vikki, a 10-month-old infant admitted first in the children's ward of this hospital, was transferred to our care with the complaints of:

(i) Cough with occasional fever—2½ months.
(ii) Recurrent attacks of mild respiratory distress—2 months.
(iii) Spasmodic cough while swallowing followed by episodes of choking and cyanosis—1 month.

The child had been treated by several private practitioners and paediatricians with antibiotics, antihistamines and cortisone for the last 2 months with the diagnosis of respiratory tract infection without any relief. During this period of therapy no one had asked for a radiograph of the chest.

Clinical examination of the chest revealed bilateral basal crepitations with comparatively less air entry on right side. There were no signs of mediastinitis. X-ray chest in P.A. and right lateral view revealed a foreign body—an ear-ring —in the thoracic oesophagus from the second to sixth thoracic vertebrae with widening of the mediastinum (Fig. 1a and b). After seeing the X-ray the mother remembered that she had lost an ear-ring 3 months back. Diagnosis of a

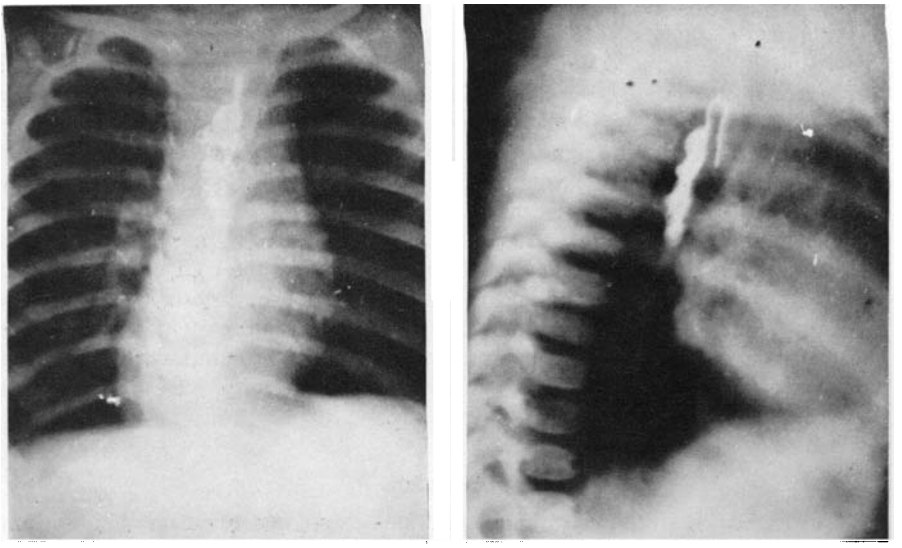


Fig. 1a and b.
X-ray chest both P.A. and lateral views showing F.B. oesophagus.

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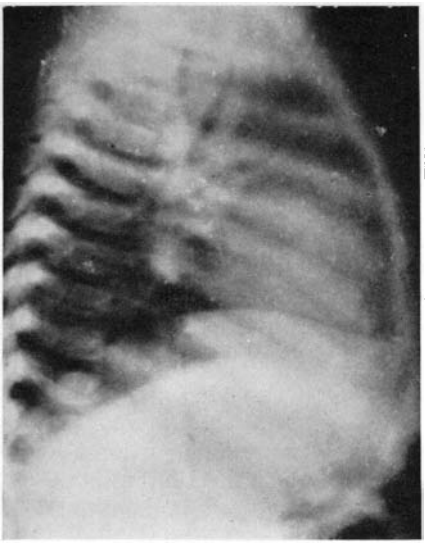


FIG. 2.

X-ray chest, lateral view showing an oblique air column connecting the right bronchus with oesophagus.

foreign body of the oesophagus with suspicion of oesophago-bronchial fistula was made.

An oesophagoscopy under G.A. was done. There was slough on anterior wall of oesophagus about 1 in. below the cricopharyngeal sphincter. After cleaning the slough the ear-ring could be seen except for its upper curved portion which was buried in the wall of oesophagus. On touching the convex part of the loop the child had violent cough and laryngeal spasm. Relaxant was given by the anaesthetist and the foreign body removed easily. Bronchoscopy revealed oedematous mucosa with few granulations in the right bronchus just below carina, probably the site of fistula.

The boy was fed by nasal catheter. Post-operative X-ray of the chest in lateral view showed an oblique air column connecting the right bronchus with the oesophagus thus confirming the diagnosis of oesophago-bronchial fistula (Fig. 2). The child had an uneventful recovery and subsequent X-ray of the chest demonstrated that the air column connecting the bronchus with oesophagus had disappeared and mediastinal shadow returned to normal. Oesophagograms done after 2 weeks revealed no abnormality.

Discussion

A foreign body in the oesophagus may not cause any dysphagia in an infant because of milk diet (Hiranandani, 1967), and the baby may be brought to the clinician with respiratory symptoms only, as was the case with this baby. Oesophago-respiratory fistula should be kept in mind in such cases specially if there is history of paroxysmal coughing on swallowing liquids (Richard *et al.*,

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1967), though F.B. oesophagus may sometimes cause such symptoms even without fistula.

X-ray chest should be done in all cases of obscure pulmonary symptomatology not responding to antibiotics for any evidence of F.B. in oesophagus. The presence of oesophago-bronchial communication may be demonstrated by further roentgenographic techniques and confirmed by bronchoscopy and oesophagoscopy.

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